CLAIMS

We claim:

1. A method for a first computing device to enable a second computing device to initiate a traffic flow with the first computing device, the method comprising:

formulating a message addressed for delivery to the second computing device; and

sending the message addressed for delivery to the second computing device.

2. The method of claim 1 wherein formulating a message comprises writing a public address of the second computing device into the message.

3. The method of claim 1 wherein formulating a message comprises writing a public address of a Network Address Translator (NAT) into the message, and wherein the second computing device is behind the NAT.

4. The method of claim 1 wherein formulating a message comprises writing a NULL content field into the message.

5. The method of claim 1 further comprising:

setting a timer associated with the sending step; and

upon expiration of the timer, sending a follow-up message addressed for delivery to the second computing device.

6. The method of claim 5 wherein a delay of the timer depends upon a type of a communications protocol used in the sending step.

7. The method of claim 1 further comprising:

before formulating the message, discovering an identity of the second computing device as a device with which the first computing device wishes to communicate.

8. The method of claim 7 wherein discovering comprises identifying the first computing device and identifying a type of communication in which the first computing device wishes to participate.

9. The method of claim 1 further comprising:

choosing a port number;

associating the chosen port number with the message; and

communicating the chosen port number to the second computing device.

10. The method of claim 9 further comprising:

setting a timer associated with the sending step; and

upon expiration of the timer, choosing a second port number, associating the second port number with a follow-up message, communicating the second port number to the second computing device, and sending the follow-up message addressed for delivery to the second computing device.

11. A computer-readable medium having instructions for performing the method of claim 1.

12. A method for a directory service to facilitate direct communications between a first computing device and a second computing device, the method comprising:

receiving from the first computing device a first identification of the second computing device as a device with which the first computing device wishes to communicate;

identifying the first computing device to the second computing device as a device wishing to communicate with the second computing device;

receiving from the second computing device a second identification of the first computing device as a device with which the second computing device wishes to communicate; and

identifying the second computing device to the first computing device as a device wishing to communicate with the first computing device.

13. The method of claim 12 wherein identifying the first computing device to the second computing device comprises sending a port number to be used in communicating with the first computing device.

14. The method of claim 12 wherein identifying the second computing device to the first computing device comprises sending a public network address of the second computing device.

15. The method of claim 12 wherein identifying the second computing device to the first computing device comprises sending a public network address of a NAT behind which lies the second computing device.

16. A computer-readable medium having instructions for performing the method of claim 12.

17. A method for a first computing device to enable a second computing device to initiate a traffic flow with the first computing device, the method comprising:

identifying to a directory service the second computing device as a device with which the first computing device wishes to communicate;

receiving from the directory service an identification of the second computing device as a device wishing to communicate with the first computing device;

formulating a message addressed for delivery to the second computing device; and

sending the message addressed for delivery to the second computing device.

18. The method of claim 17 wherein receiving an identification of the second computing device comprises receiving a public network address of the second computing device.

19. The method of claim 17 wherein receiving an identification of the second computing device comprises receiving a public network address of a NAT behind which lies the second computing device.

20. The method of claim 17 wherein formulating a message comprises writing a public address of the second computing device into the message.

21. The method of claim 17 wherein formulating a message comprises writing a public address of a NAT into the message, and wherein the second computing device is behind the NAT.

22. The method of claim 17 wherein formulating a message comprises writing a NULL content field into the message.

23. The method of claim 17 further comprising:

setting a timer associated with the sending step; and

upon expiration of the timer, sending a follow-up message addressed for delivery to the second computing device.

24. The method of claim 23 wherein a delay of the timer depends upon a type of a communications protocol used in the sending step.

25. The method of claim 17 further comprising:

choosing a port number;

associating the chosen port number with the message; and

communicating the chosen port number to the second computing device.

26. The method of claim 25 further comprising:

setting a timer associated with the sending step; and

upon expiration of the timer, choosing a second port number, associating the second port number with a follow-up message, communicating the second port number to the second computing device, and sending the follow-up message addressed for delivery to the second computing device.

27. A computer-readable medium having instructions for performing the method of claim 17.